San Francisco Bay Area Wetlands Restoration Program
Wetlands Monitoring Group

Meeting Summary
June 23, 2003

Attendees:
Bob Batha (San Francisco Bay Conservation and Development Commission)
Andree Breaux (San Francisco Bay Regional Water Quality Control Board)
John Brosnan (Wetlands Restoration Program)
Josh Collins (San Francisco Estuary Institute)
Arthur Feinstein (Golden Gate Audubon Society)
Eric Grijalva (Invasive Spartina Project)
Heather Gustafson (Bay Planning Coalition)
Totton Heffelfinger (Sierra Club)
Paul Jones (U.S. Environmental Protection Agency)
Maggi Kelly (UC Berkeley)
Phil Lebednik (LFR Levine-Fricke)
Karl Malamud-Roam (Contra Costa Mosquito Vector and Control District)
Molly Martindale (U.S. Army Corps of Engineers)
Mike May (San Francisco Estuary Institute)
Peggy Olofson (Invasive Spartina Project)
Anitra Pawley (The Bay Institute)
Stuart Siegel (Wetlands and Water Resources)
Eric Tattersall (California Department of Fish and Game)
Luisa Valiela (U.S. Environmental Protection Agency)
Mike Vasey (San Francisco State University)
Katy Zaremba (Invasive Spartina Project)

1. Introductions/Review Agenda

Karl Malamud-Roam opened the discussion with a roundtable of introductions; Molly Martindale chaired the meeting. Peggy Olofson introduced her staff from the Invasive Spartina Project. Karl requested to add an agenda item on NOAA's tidal datum changes, which will affect monitoring efforts.

2. Update on WRP Issues

John Brosnan stated the June 10 Executive Council meeting went very well and the Council adopted the Charter of Working Principles. The final change made to that document before adoption was the official removal of SFEI and the Joint Venture from the Coordinating Committee in order to avoid legal challenge based on the Federal Advisory Committee Act (FACA). The Council also determined how the Design Review Group approaches the review of mitigation projects, stating the group can only review mitigation projects when the project is referred to the group by a reviewing permitting agency and when the project is a publicly sponsored project. One item coming up will be the WRP's hosting or co-hosting of a charrette among the environmental NGO community (who are often proponents of restoration projects)

and regulatory/permitting agency staff; the meeting would cover the "how to" of wetlands project permitting.

3. Collaboration with the WRP Coordinating Committee

Molly stated the previous Coordinating Committee meeting featured many questions about what the Monitoring Group was up to. The idea was put forth that there would be a subcommittee meeting with members of the Committee to determine how that group can provide more assistance to the Monitoring Group. Peggy said a full Monitoring Program would be a good thing, but she also appreciates the forum aspect; she asked where she could find documentation of the WRMP and was referred to www.wrmp.org. **Karl expressed an interest in a one-page summary of what FACA is and how it relates to the Monitoring Group.** Molly felt the issue needed some follow-up.

4. Update on the Legacy Project

The update was postponed until a later meeting.

5. Update on WRAP

Andree Breaux said the Wetlands Rapid Assessment Process pilot study applied the WRAP process to 17 randomly selected sites to evaluate mitigation compliance. Most project sites were less than one acre and there will be a compliance score and an ecological score for each site. The process is based on a similar rapid assessment process used in Florida. Karl noted there is much at a site that is not apparent and wanted to know how those attributes or functions would be taken into consideration. Tott Heffelfinger was concerned with the subjectivity of such processes; Andree noted the CRAM process was more quantitative and said the WRAP process was being tested to determine, among other things, the subjective nature of the process. Andree said an analysis of the limitations was to come. Arthur Feinstein stated the need to continually look at the same sites over a period of time; Andree said rapid assessments are working towards that. Andree said the sites looked at were mitigation sites and the analysis will hopefully be complete by the end of the summer. Karl asked if this pilot process was based in method evaluation, and Andree said it was based in part on evaluation of the methodology. Molly stated the pilot process was about comparing the impacts of mitigation and the result of mitigation is.

6. Summary of CALFED's IRWM Project

Stuart Siegel provided an update on the CALFED Integrated Regional Wetland Monitoring (IRWM) Pilot project. This CALFED-funded effort is close to selecting monitoring sites in San Pablo Bay, Suisun marsh, and the Delta; partners include UC Berkeley, PRBO, U.S.G.S., Philip Williams and Associates, SFEI, the University of Washington, and San Francisco State University. There are six teams together for now, using a conceptual monitoring model with integrated field data. At this point, the project is envisioned as a two-year process. What is CALFED is looking for in this project is: What ecological output are we getting from restoration efforts? Sites to be selected will feature both restored and natural sites within each basin. Stuart said there would be continuous samples from fixed instrumentation and quarterly sampling for

some teams (sampling frequency varies depending on teams). Teams include one each for birds, plants, biological production, landscape ecology, fish/invertebrates/nutrients, and information management. Stuart said the website with a host of information is yet to come but that it should link with www.wrmp.org. Stuart stated some sites selected or under consideration for selection in Suisun include San Souci Duck Club, East Chipps Island, Browns Island, and Rush Ranch. Andree expressed her concern that some major groups can be omitted from sampling, due to cost and ease of sampling methods.

7. NOAA Tidal Datums and GIS for mosquito-borne viruses

Karl Malamud-Road stated NOAA has released new tidal datums with two substantial changes. One is the change in geodetic height datums, which essentially nullifies the use of NGVD. However, surveys are integrally tied into NGVD as years of legal documents reference the quantifier. Inconsistency with its use only increases the questionability of NGVD and the change to NAVD will be coming soon. Karl noted there is typically a three-foot difference between the two. Karl also noted tidal heights are being redefined; National Ocean Service is trying to make accurate water height charts and reconcile those with existing legal definitions based on the 1968 data (new heights are based on the 1983-2001 epoch). Recalculated heights and corresponding Bay Area benchmarks are available at NOAA's website. **Paul Jones noted a subgroup to evaluate these changes could be very beneficial.** Karl stated there has been some reoccupation of the Port Chicago tide gauge station. Arthur asked if the regulators are looking at this, but Molly stated they were not since a new protocol was required before imposing any new regulations. Phil Lebednik felt that a changing environmental parameter (in this case rising sea level) results in conditions that are not in equilibrium. Therefore, the underlying assumption of many studies that conditions are not in flux may be invalid. For example, this fact could affect interpretation of studies that look at the rate of restoration at Bay tidal sites over time. Stuart noted the first-hand effects of these changes on marsh design. Bob Batha suggested focusing any workshop on pragmatic, substantive results. Josh suggested this group coordinate such a workshop.

Relative to West Nile virus, 26 states have been affected this year and the disease is expected in California in the next 3-6 weeks. The presence of the disease may lead people to negatively associate wetlands with the disease. The question then becomes how best to integrate the language of managers and of wetlands advocates? The Joint Venture is currently requesting that local newspapers evaluate the impact of wetlands restoration on mosquito populations. Karl is working on a GIS data management application that would provide information to managers and to the public on where the pests are located, where pesticides are used, where endangered species are located (so as to avoid pesticide application in those locations), and where any problematic wetlands might be located. Options for real-time use of this are creation of an entirely new data management system, piggybacking on to an existing system, combining it with information coming into the vector control districts, and/or through the Department of Health Services. The project is also in need of securing funding. **Josh Collins suggested a subcommittee to evaluate these potential options and funding ideas might be very helpful. Karl offered to send more background information as to what he is specifically looking for in terms of input.** He also noted the potential for negative association with upcoming stormwater program requirements and their perceived and/or real impact on mosquito populations. The group as a whole noted this is going to be a major issue in the long-term. Josh noted the CRAM

funding will provide for an online data management system and this is an instance where such a data management system would be required.

8. CRAM, EMAP, Wetland Tracker

Josh Collins said the Montezuma Technical Review Team has its first annual meeting on June 24 and the group is currently expanding. He explained to the group the Environmental Monitoring and Assessment Program (EMAP) project, which is an U.S. EPA research program to develop the tools necessary to monitor and assess the status and trends of national wetland resources. For the past four years and for the next two, the program is focusing on the west coast. Initially, EMAP funded intertidal sites and was then scaled up to full-size watershed analysis. Data is now being collected with a full report to come by December 30. One component was the development of a people in watersheds map, which is a new watershed map overlain with demographics. Fragmentation analysis and patch analysis are coming online, too.

The National Wetlands Inventory (NWI) is a nationwide wetlands mapping effort; NWI is linked up with the California Resources Agency Legacy Project with a statewide wetlands mapping effort underway. SFEI is the Bay Area regional partner. Mapping of all contiguous non-baylands wetlands is forthcoming soon. The NWI mapping does not adopt a regulatory definition of wetlands, but instead provides a comprehensive map of places and hydrogeomorphic attributes of those places.

The California Rapid Assessment Method for wetlands (CRAM) is based on assessment of physical site conditions and site vegetation. CRAM is based on a U.S. EPA three-level approach; Level One is the GIS inventory, Level Two is the rapid assessment method, and Level Three is the intensive site-specific science needed to substantiate Levels One and Two. The Core Team working on CRAM has added a Level 2.5 in an effort to make some attributes more visible, such as contaminants and birds that might be missed on site visits. Josh noted one of the benefits of CRAM is that it makes monitoring relatively more affordable. There are two layers to CRAM; there is a statewide core team looking for a model for all wetland types and there are regional teams with more region-specific priorities. Thus far, the core team has met four times; the regional teams are presently in the verification stage, which is followed by the calibration stage and then the validation stage. Josh noted the core team decided not to rank wetlands in their use of CRAM, but rather to focus on assessment of condition. Arthur Feinstein noted effective monitoring requires constant, consistent investigation in order to catch infrequent occurrences and wanted to make sure that was a part of the CRAM process. Karl noted the necessary trade off available funds and finding/tacking the time to undertake monitoring and any statistical rarities must be emphasized. Phil Lebednik pointed out statistical analysis only works with threshold abundance, but noted protocols must state their objectives and also state what they cannot accurately tell. Tott Heffelfinger expressed his concern about the ultimate application of CRAM. Josh noted the information will be available at the www.wrmp.org website.

9. The Bay Institute Ecological Scorecard – Wetlands Index

Anitra Pawley presented the Bay Institute's Ecological Scorecard Wetlands Index, which essentially tracks wetland changes over time and evaluates their current state. The wetlands index is part of the larger scorecard, which will have 8-10 regional-level indices tracking a variety of indicators. The goal is to create a habitat index that can convey habitat loss to the public, but Anitra asked the group if the grading should be based on historical conditions (i.e., for tidal marsh, tidal flat, riparian habitat, etc.). Another question is what are the goals now since the production of the Baylands Ecosystem Habitat Goals Report? Also, how best to account for mitigation projects in terms of representing gains and losses? Peggy Olofson asked about how to add more variables and asked at what point is a restored site considered to be habitat? Karl resounded that point and added the need to clearly define how to count restoration and benefit enhancement. Anitra emphasized the importance of using scores for people, but asked – in terms of enhancement – how to measure how we are doing and relative to what goal? Anitra asked what the group wants to tell the layperson. Andree advised keeping categories strictly defined. Phil suggested focusing not just on habitat quality, but also on objective facts, such as private/public land ownership, restoration of tidal connectivity, etc. Molly noted this topic required additional focus and suggested it come back to the next meeting. **Anitra said she would supply an email to John for distribution as well as a list of projects.** Stuart Siegel noted the more populated the wetland tracker is, the more effective it will be.

10. Next Meeting Date

The next meeting date was set for Monday, September 8, at 1 P.M. Paul Jones suggested a placeholder on the agenda for brief announcements. In closing, Molly noted the WRP has received some funds to establish review teams for monitoring plans – similar in fashion to the DRG – and that would be discussed at the next meeting. The meeting was adjourned.